(b) Outline the steps involved in building an effective Software Quality Assurance (SQA) plan and its significance.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Outline the stages of the Product Development Life Cycle (PDLC) and the importance of each stage.

17. How do financial processes influence project planning and decision-making in an organization?

18. Identify and describe common problems and risks in software projects, and discuss strategies for mitigating these risks.

19. Explain the scheduling fundamentals in project management, including the key components involved in creating a project schedule.

20. Identify and explain the challenges associated with implementing a robust quality management system in software projects.

Shanmuga Industries Arts & Science College ★ T.V.Malai

APRIL/MAY 2025

23USSC24 — SOFTWARE PROJECT MANAGEMENT (SEC III)

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. What are the main phases of the Software Development Process?

2. What does SEI CMM stand for?

3. How does project portfolio management help in optimizing resource allocation?

4. What key financial processes are involved in project management?

5. What are common types of problems and risks associated with software projects?

6. What is the SEI CMM, and what does it assess in software development organizations?

7. What are software development dependencies, and how do they affect project timelines?

8. What is brainstorming, and how is it used in project management?

9. What are some common guidelines for ensuring software quality?

10. What challenges do organizations face in maintaining software quality?

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Compare different software development models, such as the Waterfall and Agile models, and discuss their advantages and disadvantages.

Or

(b) What is the SEI CMM model, and how does it help in improving software development processes?

12. (a) Outline the process of project planning and its critical role in achieving project objectives.

Or

(b) Describe the criteria and strategies for selecting an effective project team to ensure successful project delivery.

13. (a) Compare the COCOMO and COCOMO II models in terms of their application and effectiveness in project estimation.

Or

(b) Examine the various methods of cost estimation in software projects and how they contribute to effective budgeting.

14. (a) Examine the impact of software development dependencies on project planning and delivery, including potential risks.

Or

(b) Evaluate the role of brainstorming in project management and its effectiveness in generating innovative solutions and ideas.

15. (a) Examine the role of Quality Function Deployment (QFD) in aligning software features with customer needs and expectations.

Or

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